What is claimed is:

1. An apparatus comprising:

a housing adapted to contain objects;

at least one case disposed within the housing, the case adapted to confine the objects to different locations within the housing, the case thermally coupled to the objects; and

at least one heat sink adapted to absorb heat from the case, the heat sink thermally coupled to the case and the housing.

2. The apparatus of claim 1, wherein the housing includes a lead-out for wires.

3. The apparatus of claim 2, wherein the lead-out is sealed against a pressure differential and the weather.

4. The apparatus of claim 1, wherein the exterior of the housing includes fins.

5. The apparatus of claim 1, wherein the objects are electronic circuit cards.

6. The apparatus of claim 1 further comprising a pressure-relief valve.

7. An apparatus comprising:

a housing adapted to contain objects;

at least one case disposed within the housing, the case adapted to confine the objects to different locations within the housing, the case thermally coupled to the objects; and

at least one solid heat sink adapted to absorb heat from the case, the solid heat sink thermally coupled to the case and the housing.

8. An apparatus comprising:

a housing adapted to contain objects;

at least one case disposed within the housing, the case adapted to confine the objects to different locations within the housing, the case thermally coupled to the objects; and

at least one heat sink including a phase-change material adapted to absorb heat from the case, the phase-change heat sink thermally coupled to the case and the housing.

9. The apparatus of claim 8, wherein the phase-change heat sink includes a phase-change material that changes from a solid to a liquid and vice versa.

10. The apparatus of claim 8, wherein the phase-change heat sink includes a phase-change material that changes from a liquid to a vapor and vice versa.

11. An apparatus comprising:

a housing adapted to contain objects;

at least one case disposed within the housing, the case adapted to confine the objects to different locations within the housing, the case thermally coupled to the objects; and

at least one heat pipe adapted to absorb heat from the case, the heat-pipe thermally coupled to the case and the housing.

12. An apparatus comprising:

a housing adapted to contain objects;

at least one frame disposed within the housing, the frame defining an object-containment volume within the housing, the object-containment volume divided into a plurality of sections by a plurality of partitions, the partitions thermally coupled to the frame, each of the sections divided into a plurality of slots, each slot having an object disposed therein for thermal contact between the partitions and one partition and the frame; and

at least one heat sink adapted to absorb heat from the frame, the heat sink thermally coupled to the frame and the housing.

13. The apparatus of claim 12, wherein the heat sink is a solid.

14. The apparatus of claim 12, wherein the heat sink comprises a phase-change material.

15. The apparatus of claim 14, wherein the phase change material changes from a solid to a liquid and vice versa.

16. The apparatus of claim 14, wherein the phase change material changes from a liquid to a vapor and vice versa.

17. The apparatus of claim 12, wherein the heat sink comprises at least one heat pipe.

18. An apparatus comprising:

a base;

a partial-shell having an aperture therein, the partial-shell attached to the base, whereby the base and partial-shell define a housing adapted to contain objects, the housing having an aperture;

a cover adapted to close the housing by covering the aperture;

a frame disposed in the housing, the frame defining an object containment volume within the housing, the object containment volume divided into two regions by a first partition, each of the two regions divided into a plurality of sections by a plurality of second partitions, each of the second partitions thermally coupled to the frame and the first partition, each of the sections divided into a plurality of slots, each slot having an object disposed therein for thermal contact between the first partition, a second partition, and one of a second partition and the frame;

at least one heat sink adapted to absorb heat from the frame, the heat sink thermally coupled to the frame and the partial-shell; and

a cage attached to the base, the cage adapted to confine the frame, including the heat sink thermally coupled thereto, to the base so that the heat sink extends through the cage, whereby when the partial-shell is attached to the base, the heat sink is thermally coupled to the partial-shell.

19. The apparatus of claim 18, wherein the exterior of the partial-shell includes fins.

20. The apparatus of claim 18, wherein the base seals against the partial-shell to seal the housing against a pressure differential and the weather.

21. The apparatus of claim 18, wherein the base includes a lead-out for wires.

22. The apparatus of claim 21, wherein the lead-out is sealed against a pressure differential and the weather.

23. The apparatus of claim 18, wherein the cover selectively seals the aperture against a pressure differential and the weather.

24. The apparatus of claim 18, wherein at least one of the second partitions comprises two outer layers that sandwich a resilient layer therebetween.

25. The apparatus of claim 18, wherein at least one of the second partitions comprises two outer layers having at least one wedge therebetween.

26. The apparatus of claim 18, wherein the frame is adapted to selective reconfiguration between operating and non-operating configurations, the non-operating configuration comprises the second partitions of one of the regions being displaced relative to the second partitions of the other region, and the operating configuration comprises the second partitions of one of the regions being aligned with the second partitions of the other region.

27. An apparatus comprising:

a cage having continuous opposing first and second openings;

a frame disposed within the cage, the region within the frame divided into two regions by a first partition, each of the two regions divided into a plurality of sections by a plurality of second partitions, each of the second partitions thermally coupled to the frame and the first partition, each of the sections divided into a plurality of slots, each slot having an object disposed therein for thermal contact between the first partition, a second partition, and one of a second partition and the frame;

at least one heat sink adapted to absorb heat from the frame, the heat sink thermally coupled to the frame, as disposed within the cage, the heat sink protruding through the cage;

a pair of partial-shells, the partial shells mated together to form a single-shell about

the cage so that at least one heat sink, protruding through the cage, is thermally coupled to at least one of the partial-shells, the single-shell so formed having first and second openings, the first opening of the single-shell coincident with first opening of the cage and at least a portion of the second opening of the single-shell coincident with the second opening of the cage;

a first cover adapted to simultaneously selectively cover the first opening of the single shell and seal the first opening of the cage against the weather and a pressure differential; and

a second cover adapted to simultaneously cover at least a portion of the second opening of the single-shell and seal the second opening of the cage against the weather and a pressure differential.

28. The apparatus of claim 27, wherein each of the partial shells includes fins on their respective exteriors.

29. The apparatus of claim 27, wherein the second cover includes a lead-out for electrical wires.

30. The apparatus of claim 29, wherein the lead-out is sealed against a pressure differential and the weather.

31. The apparatus of claim 27, wherein at least one of the second partitions comprises two outer layers that sandwich a resilient layer therebetween.

32. The apparatus of claim 27, wherein at least one of the second partitions comprises two outer layers having at least one wedge therebetween.

33. The apparatus of claim 27, wherein the frame is adapted to selective reconfiguration between operating and non-operating configurations, the non-operating configuration comprises the second partitions of one of the regions being displaced relative to the second partitions of the other region, and the operating configuration comprises the second partitions of one of the regions being aligned with the second partitions of the other region.

34. The apparatus of claim 27, further comprising at least one heat sink adapted to

thermally couple the frame to the first cover.

35. An apparatus comprising:

a shell, the interior of the shell divided into two compartments by a first partition, the shell having a pair of adjacent first apertures in the same plane, one first aperture for each compartment, the shell having a second aperture opposite the first apertures, the shell having at least one third aperture, the third aperture in one of the compartments between and perpendicular to one of the first apertures and the second aperture;

a pair of first covers, each adapted to selectively seal one of the first apertures against the weather and a pressure differential;

a second cover adapted to seal the second aperture against the weather and a pressure differential;

at least one third cover adapted to seal the third aperture against the weather and a pressure differential;

at least one frame, the frame disposed in one of the compartments, the frame divided into two regions by a second partition, each of the two regions divided into a plurality of sections by a plurality of third partitions, each of the third partitions thermally coupled to the frame and the second partition, each of the sections divided into a plurality of slots, each slot having an object disposed therein for thermal contact between the second partition, a third partition, and one of a third partition and the frame; and

at least one heat sink thermally coupled to the frame and the third cover, the heat sink adapted to absorb heat from the frame.

36. The apparatus of claim 35, wherein the third cover includes fins on its exterior.

37. The apparatus of claim 35, wherein the second cover includes a lead-out for wires.

38. The apparatus of claim 37, wherein the lead-out is sealed against a pressure differential and the weather.

39. The apparatus of claim 35, wherein at least one of the second partitions comprises two outer layers that sandwich a resilient layer therebetween.

40. The apparatus of claim 35, wherein at least one of the second partitions comprises two outer layers having at least one wedge therebetween.

41. The apparatus of claim 35, wherein the frame adapted to selective reconfiguration between operating and non-operating configurations, the non-operating configuration comprises the third partitions of one of the regions being displaced relative to the third partitions of the other region, and the operating configuration comprises the third partitions of one of the regions being aligned with the third partitions of the other region.

42. The apparatus of claim 35, further comprising a pair of tethers, each interconnecting one of the pair of first covers to the shell.

43. The apparatus of claim 42, wherein each tether is nonmetallic.

44. A method for manufacturing an apparatus for containing objects, the method comprising:

forming a housing;

forming at least one case adapted to confine the objects to different locations within the housing;

forming at least one heat sink adapted to absorb heat from the case;

forming a thermal coupling between the objects and the case;

forming a thermal coupling between the case and the heat sink;

disposing the case, as thermally coupled to the objects and the heat sink, within the housing; and

forming a thermal coupling between the heat sink, as thermally coupled to the case, and the housing.

45. The method of claim 44, wherein forming the housing includes providing a lead-out in the housing for wires.

46. The method of claim 45, further comprising sealing the lead-out so that the housing is sealed against the weather and a pressure differential.

47. The method of claim 44, wherein forming the housing includes forming fins on the exterior of the housing.

48. The method of claim 44, wherein forming the heat sink includes using a solid for the heat sink.

49. The method of claim 44, wherein forming the heat sink includes using a phase-change material for the heat sink.

50. The method of claim 49, wherein using a phase-change material for the heat sink includes using a phase-change material that changes from a solid to a liquid and vice versa.

51. The method of claim 49, wherein using a phase-change material for the heat sink includes using a phase-change material that changes from a liquid to a vapor and vice versa.

52. The method of claim 44, wherein forming the heat sink includes using at least one heat pipe for the heat sink.

53. A method for manufacturing an apparatus for containing objects, the method comprising:

forming a housing;

forming at least one frame, the frame defining an object-containing volume within the housing;

partitioning the object-containing volume into plurality of sections using a plurality of partitions;

forming a thermal coupling between each of the partitions and the frame;

forming a plurality of slots in each of the sections;

inserting the objects into the slots;

forming a thermal coupling between the objects and the partitions and the partitions the frame;

forming at least one heat sink adapted to absorb heat from the frame;

forming a thermal coupling between the frame and the heat sink;

disposing the frame, as thermally coupled to the objects and the and heat sink, within the housing; and

forming a thermal coupling between the heat sink, as thermally coupled to the frame, and the housing.

54. A method for manufacturing an apparatus for containing objects, the method comprising:

forming a partial-shell;

forming an aperture in the partial-shell;

forming fins on the exterior of the partial-shell;

forming a base;

forming a cover;

using the cover to selectively seal the aperture against the a pressure differential and the weather;

forming a frame;

forming a first partition;

dividing the region within the frame into two regions using the first partition;

forming a plurality of second partitions;

dividing each of the two regions into a plurality of sections using the plurality of second partitions;

forming a thermal coupling between each of the partitions and the frame and the first partition;

forming a plurality of slots in each of the sections;

inserting the objects into the slots;

forming a thermal coupling between the objects and the first partition, a second partition, and one of a second partition and the frame;

forming at least one heat sink adapted to absorb heat from the frame;

forming a thermal coupling between the frame and the heat sink;

disposing the frame, as thermally coupled to the objects and the and heat sink, within the partial shell;

forming a thermal coupling between the heat sink, as thermally coupled to the frame, and the partial-shell; and

using the base to seal the partial-shell, as thermally coupled to the heat sink.

55. The method of claim 54, wherein disposing the frame within the partial-shell comprises:

forming a cage;

disposing the frame within a cage so that the heat sink protrudes an opening in the cage; and

attaching the cage to the base.

56. The method of claim 54, wherein forming the base includes forming a lead-out for wires in the base.

57. The method of claim 56, wherein using the base to seal the partial-shell includes sealing the lead-out.

58. The method of claim 54 wherein forming the second partitions includes forming at least one of the second partitions by

forming a pair of outer layers and

disposing a layer of resilient material between the outer layers.

59. The method of claim 54 wherein forming the second partitions includes forming at

least one of the second partitions by

forming a pair of outer layers and

inserting at least one wedge between the outer layers.

60. The method of claim 54 further comprising adapting the frame to be selectively reconfigured between a non-operating configuration and an operating configuration, wherein the non-operating configuration comprises the second partitions of one the regions being displaced relative to the second partitions of the other region, wherein the operating configuration comprises the second partitions of one of regions being aligned with the second partitions of the other region.

61. The method of claim 60, wherein inserting the objects into the slots comprises inserting the objects into the slots while the frame is in the non-operating configuration; and

62. The method of claim 61, wherein forming a thermal coupling between the objects and the first partition, a second partition, and one of a second partition and the frame is accomplished by reconfiguring the frame to the operating configuration.

63. A method for manufacturing an apparatus for containing objects, the method comprising:

forming a pair of partial-shells;

forming fins on each of the partial-shells;

forming a cage having continuous opposing first and second openings;

forming a frame;

forming a first partition;

dividing the region within the frame into two regions using the first partition;

forming a plurality of second partitions;

dividing each of the two regions into a plurality of sections using the plurality of second partitions;

forming a thermal coupling between each of the partitions and the frame and the first partition;

forming a plurality of slots in each of the sections;

inserting the objects into the slots;

forming a thermal coupling between the objects the first partition, a second partition, and one of a second partition and the frame;

forming at least one heat sink adapted to absorb heat from the frame;

forming a thermal coupling between the frame and the heat sink;

disposing the frame containing the objects and having at least one heat sink coupled thereto, within the cage so the heat sink protrudes through the cage;

abutting the partial-shells to form a single-shell, having opposing first and second openings, around the cage so the first opening of the cage coincides with the first opening of the single-shell, the second opening of the cage coincides with at least a portion of the second opening of the single shell, and at least one heat sink protruding through the cage is thermally coupled to one of the partial shells;

forming a first cover;

using the first cover to simultaneously selectively cover the first opening of the single-shell and seal the first opening of the cage against the a pressure differential and the weather;

forming a second cover; and

using the second cover to simultaneously cover a portion of the second opening of the single-shell and seal the second opening of the cage against the weather.

64. The method of claim 63, wherein forming the second cover includes forming a lead-out for wires in the second cover.

65. The method of claim 64, wherein using the second cover to seal the partial-shell includes sealing the lead-out.

66. The method of claim 63, wherein abutting the partial shells comprises forming a thermal coupling between the shells.

67. The method of claim 63, wherein abutting the partial shells comprises sealing the abutment against the weather and a pressure differential.

68. The method of claim 63 wherein forming the second partitions includes forming at least one of the second partitions by

forming a pair of outer layers and

disposing a layer of resilient material between the outer layers.

69. The method of claim 63 wherein forming the second partitions includes forming at least one of the second partitions by

forming a pair of outer layers and

inserting at least one wedge between the outer layers.

70. The method of claim 63 further comprising adapting the frame to be selectively reconfigured between a non-operating configuration and an operating configuration, wherein the non-operating configuration comprises the second partitions of one the regions being displaced relative to the second partitions of the other region, wherein the operating configuration comprises the second partitions of one of regions being aligned with the second partitions of the other region.

71. The method of claim 70, wherein inserting the objects into the slots comprises inserting the objects into the slots while the frame is in the non-operating configuration.

72. The method of claim 71, wherein forming a thermal coupling between the objects and the first partition, a second partition, and one of a second partition and the frame is accomplished by reconfiguring the frame to the operating configuration.

73. The method of claim 63, wherein forming at least one heat sink includes forming at least two heat sinks.

74. The method of claim 73, wherein forming the thermal coupling between the frame and the heat sink includes forming a thermal coupling between the frame and the at least

two heat sinks.

75. The method of claim 74, further comprising forming a thermal coupling between at least one of the at least two heat sinks and the first cover.

76. A method for manufacturing an apparatus for containing objects, the method comprising:

forming a shell;

forming a first partition to divide the interior of the shell into two compartments;

forming an pair adjacent first apertures in the shell, one first aperture for each compartment;

forming a second aperture in the shell opposite the first apertures;

forming at least one third aperture in the shell between and perpendicular to one of the first apertures and the second aperture, the third aperture opening into one of the compartments;

forming a pair of first covers;

using each of the first covers to selectively seal each of the first apertures against a pressure differential and the weather;

forming at least one frame;

forming a second partition;

dividing the region within the frame into two regions using the second partition;

forming a plurality of third partitions;

dividing each of the two regions of the frame into a plurality of sections using the plurality of third partitions;

forming a thermal coupling between each of the third partitions and the frame and the second partition;

forming a plurality of slots in each of the sections of the frame;

inserting the objects into the slots;

forming a thermal coupling between the objects and the second partition, a third partition, and one of a third partition and the frame;

forming a second cover;

forming at least one third cover;

forming fins on the exterior of the third cover;

disposing frame, as thermally coupled to the objects, within one of the compartments;

forming at least one heat sink, the heat sink adapted to absorb heat from the frame;

forming a thermal coupling between interior the third cover and the heat sink;

forming a thermal coupling between the heat sink and the frame;

using the third cover to seal the third aperture against the weather and a pressure differential; and

using the second cover to seal the second aperture against the weather and a pressure differential.

77. The method of claim 76, wherein forming the second cover includes forming a lead-out for wires in the second cover.

78. The method of claim 77, wherein using the second cover to seal the shell includes sealing the lead-out.

79. The method of claim 76 wherein forming the second partitions includes forming at least one of the second partitions by

forming a pair of outer layers and

disposing a layer of resilient material between the outer layers.

80. The method of claim 76 wherein forming the second partitions includes forming at least one of the second partitions by

forming a pair of outer layers and

inserting at least one wedge between the outer layers.

81. The method of claim 76 further comprising adapting the frame to be selectively reconfigured between a non-operating configuration and an operating configuration, wherein the non-operating configuration comprises the third partitions of one the regions being displaced relative to the third partitions of the other region, wherein the operating configuration comprises the third partitions of one of regions being aligned with the third partitions of the other region.

82. The method of claim 81, wherein inserting the objects into the slots comprises inserting the objects into the slots while the frame is in the non-operating configuration.

83. The method of claim 82, wherein forming a thermal coupling between the objects and the second partition, a third partition, and one of a third partition and the frame is accomplished by reconfiguring the frame to the operating configuration.

84. The method of claim 76, further comprising connecting each of the pair of first covers to the shell using each of a pair of tethers, respectively.

85. The method of claim 84, wherein connecting each of the pair of first covers to the shell using each of a pair of tethers, respectively, includes using tethers of a nonmetallic material.

86. A method for reducing the temperature in a housing containing an array of heat-dissipating objects, the method comprising:

forming at least one case adapted to confine the objects to different locations within the housing;

forming at least one heat sink adapted to absorb heat from the case;

forming a thermal coupling between the case and the heat sink;

disposing the case, as thermally coupled to the objects and the heat sink, within the housing; and

forming a thermal coupling between the heat sink, as thermally coupled to the case, and the housing.

87. The method of claim 86, wherein forming the case comprises:

forming a frame;

forming a first partition;

dividing the region within the frame into two regions using the first partition;

forming a plurality of second partitions;

dividing each of the two regions into a plurality of sections using the plurality of second partitions;

forming a thermal coupling between each of the partitions and the frame and the first partition;

forming a plurality of slots in each of the sections;

inserting the objects into the; and

forming a thermal coupling between the objects and the first partition, a second partition, and one of a second partition and the frame.

88. The method of claim 86, wherein forming the heat sink includes using a solid for the heat sink.

89. The method of claim 86, wherein forming the heat sink includes using a phase-change material for the heat sink.

90. The method of claim 89, wherein using a phase-change material for the heat sink includes using a phase-change material that changes from a solid to a liquid and vice versa.

91. The method of claim 90, wherein using a phase-change material for the heat sink includes using a phase-change material that changes from a liquid to a vapor and vice versa.

92. The method of claim 86, wherein forming the heat sink includes using at least one heat pipe for the heat sink.

93. The method of claim 87, wherein forming the second partitions includes forming at least one of the second partitions by

forming a pair of outer layers and

disposing a layer of resilient material between the outer layers.

94. The method of claim 87 wherein forming the second partitions includes forming at least one of the second partitions by

forming a pair of outer layers and

inserting at least one wedge between the outer layers.

95. The method of claim 87 further comprising adapting the frame to be selectively reconfigured between a non-operating configuration and an operating configuration, wherein the non-operating configuration comprises the second partitions of one the regions being displaced relative to the second partitions of the other region, wherein the operating configuration comprises the second partitions of one of regions being aligned with the second partitions of the other region.

96. The method of claim 95, wherein inserting the objects into the slots comprises inserting the objects into the slots while the frame is in the non-operating configuration.

97. The method of claim 96, wherein forming a thermal coupling between the objects and the first partition, a second partition, and one of a second partition and the frame is accomplished by reconfiguring the frame to the operating configuration.